

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of	)	
	)	
SHYUNICHI KOIDE, YAUUYUKI KOMATSU	)	
AND MASAHIKO SHIBUYA	)	
	)	
Serial No. 10/726,376	)	Group Art Unit: 1764
	)	
Filed December 3, 2003	)	Examiner: Ellen McAvoy
	)	
KEROSENE COMPOSITION	)	Date: February 11, 2008
_____	)	

COMMISSIONER FOR PATENTS  
P. O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**APPEAL BRIEF**

Applicants hereby submit this Appeal Brief in order to appeal the final rejection of claims 1-3 and 5-16 of the present application, made in the final action mailed August 14, 2007. Please charge the \$510 fee for the filing of this brief to Shell Oil Company, Deposit Account No. 19-1800. Applicants respectfully request that the final rejection of the Examiner be reversed and that the application be sent back to the Examiner for allowance.

### Real Party in Interest

The real party in interest is Shell Oil Company as evidenced by the assignment set forth at Reel 015247, Frame 0092.

### Related Appeals and Interferences

To the best of the undersigned's knowledge, there are no related appeals or interferences.

### Status of the Claims

Claims 1-16 were originally presented for examination. Claims 4 and 13 were canceled previously. Claims 1-3, 5-12, and 14-16 were rejected on August 14, 2007. The rejection of claims 1-3, 5-12, and 14-16 is appealed.

### Status of Amendments

No amendments to the claims have been filed.

### Summary of Claimed Subject Matter

The invention as set forth in claim 1 is directed to a kerosene heating oil composition. *See* specification, p. 3, lines 13-19. The composition comprises at least 99 wt% of at least one n-paraffins and/or iso-paraffins and at least one cyclo-paraffins and/or alkyl derivatives. *See* specification, p. 4, lines 1-6 and p. 5, line 30 – p. 6, line 3. The n-paraffins and/or iso-paraffins have from 7 to 18 carbon atoms. *See* specification, p. 4, lines 3-4 and p.4, line 18 – p. 5, line 8. The cyclo-paraffins and/or alkyl derivatives thereof have from 9 to 18 carbon atoms. *See* specification, p. 4, lines 5-6 and p. 5, lines 9-29. The ratio by weight of the n-paraffins and/or iso-paraffins to the cyclo-paraffins and/or alkyl derivatives thereof is from 92:8 to 25:75. *See* specification, p. 6, lines 4-15.

### Grounds of Rejection to be Reviewed on Appeal

In the office action, claims 1-3, 5-9, and 13-16 were rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Halik et al. (US 3,384,574) (hereinafter the '574 patent'). The rejection of claims 1-3, 5-9, and 13-16 is appealed.

In the office action, claims 1-3, 5-9, and 13-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kirk, Jr. (US 3,985,638) (hereinafter the '638 patent) in combination with Halik et al., the '574 patent. The rejection of claims 1-3, 5-9, and 13-16 is appealed.

In the office action, claims 1-3, 5-9, and 13-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Schreiner et al. (US 5,713,964) (hereinafter the '964 patent) in combination with Halik et al., the '574 patent. The rejection of claims 1-3, 5-9, and 13-16 is appealed.

In the office action, claims 1-3, and 5-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Berlowitz et al (US 5,689,031) (hereinafter the '031 patent) in combination with either Halik et al., the '574 patent, Kirk, Jr., the '638 patent, or Schreiner et al., the '964 patent. The rejection of claims 1-3, and 5-16 is appealed.

#### Argument

##### *Rejection of Claims 1-3, 5-9 and 13-16 under 35 USC 102(b) or 35 USC 103(a) over Halik et al. ('574 patent)*

The Examiner rejected Claims 1-3, 5-9 and 13-16 for allegedly being anticipated under 35 U.S.C. §102(b) or being obvious under 35 U.S.C. § 103(a) over the '574 patent. Applicants respectfully disagree.

Claim 1, as previously presented, claims a kerosene heating oil composition. The '574 patent discloses jet fuel compositions prepared from straight run kerosene fractions, but it does not disclose a kerosene heating oil composition. The '574 patent does not anticipate claims 1-3, 5-9 and 13-16 as limited to kerosene heating oil compositions. In addition, the examiner has not met the burden of showing *prima facie* obviousness of this kerosene heating oil composition.

##### *Rejection of Claims 1-3, 5-9 and 13-16 under 35 USC 103(a) over Kirk, Jr. ('638 patent) in combination with Halik et al. ('574 patent)*

The Examiner rejected Claims 1-3, 5-9 and 13-16 under 35 U.S.C. § 103(a) for allegedly being unpatentable over the '638 patent in combination with the '574 patent. Applicants respectfully disagree.

Claim 1, as previously presented, claims a kerosene heating oil composition. The '638 patent discloses jet fuel compositions having high smoke points and low freeze points, but it does

not disclose a kerosene heating oil composition. The '638 patent does not disclose claims 1-3, 5-9 and 13-16 as limited to kerosene heating oil compositions. Therefore the prior art references do not contain every limitation of claim 1, and the examiner has not met the burden of showing *prima facie* obviousness.

Rejection of Claims 1-3, 5-9 and 13-16 under 35 USC 103(a) over  
Schreiner et al. ('964 patent)

The Examiner rejected Claims 1-3, 5-9 and 13-16 under 35 U.S.C. § 103(a) for allegedly being unpatentable over the '964 patent. Applicants respectfully disagree.

Claim 1, as previously presented, claims a kerosene heating oil composition. The '964 patent discloses firefighter training liquid hydrocarbon compositions containing *inter alia* a volatile iron compound, but it does not disclose a kerosene heating oil composition. The '964 patent does not disclose claims 1-3, 5-9 and 13-16 as limited to kerosene heating oil compositions. Therefore the prior art reference does not contain every limitation of claim 1, and the examiner has not met the burden of showing *prima facie* obviousness.

Rejection of Claims 1-3 and 5-16 under 35 USC 103(a) over Berlowitz et al. ('031 patent)  
in combination with either Halik et al. ('574 patent),  
Kirk, Jr. ('638 patent), or Schreiner et al. ('964 patent)

The Examiner rejected Claims 1-3 and 5-16 under 35 U.S.C. § 103(a) for allegedly being unpatentable over the '031 patent in combination with either the '574 patent, the '638 patent or the '964 patent. Applicants respectfully disagree.

Claim 1, as previously presented, claims a kerosene heating oil composition. The '031 patent discloses a clean distillate useful as a diesel fuel or diesel blending stock, but it does not disclose a kerosene heating oil composition. The '031 patent does not disclose claims 1-3, 5-9 and 13-16 as limited to kerosene heating oil compositions. Therefore the prior art reference does not contain every limitation of claim 1, and the examiner has not met the burden of showing *prima facie* obviousness.

In addition, the Examiner submits that it is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose. Applicants submit that this does not

apply to the current application that specifically claims a kerosene heating oil composition that is not the same purpose as any of the prior art references.

Conclusion

Based on the foregoing arguments, Applicants assert that the claims of the present application would not have been anticipated or obvious in view of the cited references. It is respectfully requested that this appeal be upheld and that the application be sent back to the Examiner for allowance.

Respectfully submitted,

MELIS HASSELAAR ET AL

By their attorney: /James D. Carruth/

James D. Carruth  
Reg. No. 55,038  
Shell Oil Company  
(713) 241-0135

P.O. Box 2463  
Houston, Texas 77252

## CLAIMS APPENDIX

1. A kerosene heating oil composition comprising at least 99 wt% of a) at least one n-paraffins and/or iso-paraffins, said n-paraffins and/or iso-paraffins having from 7 to 18 carbon atoms and b) at least one cyclo-paraffins and/or alkyl derivatives thereof having from 9 to 18 carbon atoms, wherein the ratio by weight of the n-paraffins and/or iso-paraffins to the cyclo-paraffins and/or alkyl derivatives thereof is from 92:8 to 25:75.
2. The kerosene composition of claim 1 wherein at least 99 wt% of said n-paraffins and/or iso-paraffins have from 7 to 12 carbon atoms.
3. The kerosene composition of claim 1 wherein at least 99 wt% of said cyclo-paraffins have from 9 to 12 carbon atoms.
5. The kerosene composition of claim 1 wherein said ratio is from 85:15 to 55:45.
6. The kerosene composition of claim 1 having a smoke point of at least 30 mm.
7. The kerosene composition of claim 1 wherein the component a) is selected from the group consisting of n-heptane, iso-heptane, n-octane, iso-octane, n-nonane, iso-nonane, n-decane, iso-decane, n-undecane, iso-undecane, n-dodecane, iso-dodecane, 2-methylheptane, 2,2-dimethylhexane, 2-methyloctane, 2,2-dimethylheptane, 2-methylnonane, 2,2-dimethyloctane, 2-methyldecane, 2,2-dimethylnonane, and mixtures thereof.
8. The kerosene composition of claim 1 wherein component b) is selected from the group consisting of n-butyl-cyclopentane, n-pentyl-cyclopentane, n-hexyl-cyclopentane, isopropyl-cyclohexane, n-butyl-cyclohexane, n-pentyl-cyclohexane, n-hexylcyclohexane, cis-decahydronaphthalene, trans-decahydronaphthalene, 1-methyl-(trans-decahydronaphthalene), 9-ethyl-(cis-decahydronaphthalene), and mixtures thereof.
9. The kerosene composition of claim 8 wherein the component b) is selected from cis- and trans-decahydronaphthalene and mixtures thereof.
10. The kerosene composition of claim 1 wherein the n-paraffins and iso-paraffins have been obtained by means of Fischer-Tropsch synthesis.
11. The kerosene composition of claim 5 wherein the n-paraffins and iso-paraffins have been obtained by means of Fischer-Tropsch synthesis.
12. The kerosene composition of claim 6 wherein the n-paraffins and iso-paraffins have been obtained by means of Fischer-Tropsch synthesis.

14. The kerosene composition of claim 5 having a smoke point of at least 30 mm.
15. The kerosene composition of claim 7 having a smoke point of at least 30 mm.
16. The kerosene composition of claim 8 having a smoke point of at least 30 mm.

## EVIDENCE APPENDIX

[None]



RELATED PROCEEDINGS APPENDIX

[None]